

Claims

What is claimed is:

1. A longevity-associated genetic locus comprising a region of human chromosome 4 having a linkage to marker D4S1564.
2. The locus of claim 1, wherein said genetic locus is contained within an approximately 20 cM region surrounding said marker.
3. A genetic locus associated with resistance to age-related disease comprising a region of human chromosome 4 having a linkage to marker D4S1564.
4. The locus of claim 3, wherein said locus is contained within an approximately 20 cM region surrounding said marker.
5. A polymorphic marker indicative of propensity for longevity on human chromosome 4, wherein said marker is contained within an approximately 20 cM region surrounding marker D4S1564 on human chromosome 4.
6. A polymorphic marker indicative of propensity for resistance to age-related disease on human chromosome 4, wherein said marker is contained within an approximately 20 cM region surrounding marker D4S1564 on human chromosome 4.
7. A method for identifying propensity for longevity, such method comprising the steps of:
 - a. amplifying DNA in the region of human chromosome 4 comprising a D4S1564 marker; and
 - b. detecting the presence of a polymorphic variant of the D4S1564 marker, wherein the presence of said variant is indicative of propensity for longevity.

- 1 8. The method of claim 7, wherein said polymorphic variant is contained within an
2 approximately 20 cM region surrounding said D4S1564 marker.
- 1 9. A method for identifying propensity for age-related disease, comprising the steps of:
2 a. amplifying DNA in the region of human chromosome 4 comprising a D4S1564
3 marker; and
4 b. detecting the presence of a polymorphic variant of the D4S1564 marker, wherein
5 the presence of said variant is indicative of propensity for resistance to age-related
6 disease.
- 1 10. The method of claim 9, wherein said polymorphic variant is contained within an
2 approximately 20 cM region surrounding said D4S1564 marker.
- 1 11. A method for determining the propensity for longevity, the method comprising the steps
2 of:
3 a. obtaining a first tissue or body fluid sample from a first subject of at least 98 years
4 of age;
5 b. obtaining a second tissue or body fluid sample from a second subject who is
6 related to said first subject;
7 c. amplifying DNA obtained from said first and second samples in a region of
8 human chromosome 4 that contains a D4S1564 marker;
9 d. detecting the presence of a polymorphic variant in said region in both said first
10 sample and said second sample; and
11 e. determining that said second subject has a propensity for longevity if said
12 polymorphic variant is detected in both said first sample and in said second
13 sample.
- 1 12. The method of claim 11, wherein said polymorphic variant is contained within an
2 approximately 20 cM region surrounding said D4S1564 marker.

- 1 13. A method for identifying propensity for age-related disease, the method comprising the
2 steps of:
- 3 a. obtaining a first tissue or body fluid sample from a first subject of at least 98 years
4 of age;
- 5 b. obtaining a second tissue or body fluid sample from a second subject who is
6 related to said first subject;
- 7 c. amplifying DNA obtained from said first and second samples in a region of
8 human chromosome 4 that contains a D4S1564 marker;
- 9 d. detecting the presence of a polymorphic variant in said region in both said first
10 sample and said second sample; and
- 11 e. determining that said second subject has a propensity for resistance to age-related
12 disease if said polymorphic variant is detected in both said first sample and in said
13 second sample.
- 1 14. The method of claim 13, wherein said polymorphic variant is contained within an
2 approximately 20 cM region surrounding said D4S1564 marker.